

Application No. 09/991,461

Docket No. 22-0157

**Amendments to the Claims**

1 (Currently Amended): A communications satellite system, comprising:

at least one user terminal;

at least one gateway terminal;

a communications satellite for conveying communication signals between said user terminal and said gateway terminal;

a forward communication path ~~between said user terminal and~~ from said gateway terminal to said user terminal through said communications satellite;

a return communication path ~~between~~ from said user terminal and to said gateway terminal through said communications satellite; and

at least one equivalent signal component, located in both said forward and return communication paths, for operating upon said communication signals; and

said equivalent signal component having substantially the same operating range in both said forward and return communication paths for at least one operating characteristic, wherein the use of at least one equivalent signal component reduces overall system cost and increases efficiency.

2 (Original): The communications satellite system of claim 1, wherein said equivalent signal component includes at least one of a low noise amplifier, a downconverter, and a transmission amplifier in each of said forward and return communication paths.

Application No. 09/991,461

Docket No. 22-0157

3 (Original): The communications satellite system of claim 1, wherein said equivalent signal components include a low noise amplifier in each of said forward and return communication paths; and

wherein said range for said operating characteristic of said low noise amplifiers includes the same bandwidth and center frequency.

4 (Original): The communications satellite system of claim 1, wherein said equivalent signal components include a downconverter in each of said forward and return communication paths; and

wherein said range for said operating characteristic of said downconverter includes the same operating band and local oscillator frequency.

5 (Original): The communications satellite system of claim 1, wherein said equivalent signal components include an upconverter in each of said forward and return communication paths; and

wherein said range for said operating characteristic of said upconverter includes the same operating band and local oscillator frequency.

6 (Original) The communications satellite system of claim 1, wherein said range has at least one of common minimum and maximum level for said equivalent signal components in said forward and return communication paths.

Application No. 09/991,461

Docket No. 22-0157

7 (Original): The communications satellite system of claim 1, wherein said range constitutes substantially identical bandwidth for said equivalent signal components in said forward and return communication paths.

8 (Original): The communications satellite system of claim 1, wherein said range constitutes substantially identical gain for said equivalent signal components in said forward and return communication paths.

9 (Original): The communications satellite system of claim 1, wherein said range constitutes substantially identical frequency range for said equivalent signal components in said forward and return communication paths.

10 (Original): The communications satellite system of claim 1, wherein said range constitutes substantially identical center frequency for said equivalent signal components in said forward and return communication paths.

11 (Original): The communications satellite system of claim 1, wherein said equivalent signal component includes a single downconverter operating in both said forward and return communication paths.

12 (Original): The communications satellite system of claim 1, wherein said equivalent signal component includes a single low noise amplifier operating in both said forward and return communication paths.

Application No. 09/991,461

Docket No. 22-0157

13 (Original): The communications satellite system of claim 1, wherein said equivalent signal component includes a single orthomode transducer operating in both said forward and return communication paths.

14-22 (Cancelled).

23 (Currently Amended):. A communications satellite, comprising:

an antenna receiving communication signals from at least one user terminal and at least one gateway terminal;

a forward communication path from ~~between said user terminal and~~ said gateway terminal to said user terminal through said communications satellite;

a return communication path from ~~between~~ said user terminal to ~~and~~ said gateway terminal through said communications satellite; and

at least one equivalent signal component, located in both said forward and return communication paths, for operating upon said communication signals; and

said equivalent signal component having substantially the same operating range in both said forward and return communication paths for at least one operating characteristic, wherein the use of at least one equivalent signal component reduces overall system cost and increases efficiency.

24 (Original): The communications satellite of claim 23, wherein said equivalent signal component includes a low noise amplifier in each of said forward and return communication paths; and

Application No. 09/991,461

Docket No. 22-0157

wherein said range for said operating characteristic of said low noise amplifiers includes the same bandwidth and center frequency.

25 (Original): The communications satellite of claim 23, wherein said equivalent signal component includes a downconverter in each of said forward and return communication paths; and

wherein said range for said operating characteristic of said downconverter includes the same operating band and local oscillator frequency.

26 (Original): The communications satellite of claim 23, wherein said equivalent signal component includes an upconverter in each of said forward and return communication paths; and

wherein said range for said operating characteristic of said upconverter includes the same operating band and local oscillator frequency.

27 (Original): The communications satellite of claim 23, wherein said range constitutes substantially identical gain for said equivalent signal components in said forward and return communication paths.

28 (Original): The communications satellite of claim 23, wherein said range constitutes substantially identical frequency range for said equivalent signal components in said forward and return communication paths.

Application No. 09/991,461

Docket No. 22-0157

29 (Original): The communications satellite of claim 23, wherein said equivalent signal component includes a single downconverter operating in both said forward and return communication paths.

30 (Original): The communications satellite of claim 23, wherein said equivalent signal component includes a single low noise amplifier operating in both said forward and return communication paths.